CLAIMS

What is claimed is:

1. A data broadcasting system for distributing data to one or more remote locations in a rain fade environment, comprising:

a transmitting processor for forming data packets comprising data to be transmitted;

a data distribution system for transmitting the data packets at least two times to one or more receivers located at remote locations, which times are separated by a time delay having a duration that is related to a rain fade event, which time delay is sufficient to allow data reconstruction in the presence of the rain fade event; and

the one or more receivers receiving the data packets and processing the data packets transmitted the at least two times to reconstruct the originally transmitted data.

2. The system recited in Claim 1 wherein the data broadcast system comprises a satellite.

3. The system recited in Claim 1 wherein the data broadcast system comprises an RF data broadcast system.

4. The system recited in Claim 1 wherein the data packets contain data to be transmitted and forward error correction bits.

5. The system recited in Claim 4 wherein the data broadcast system comprises a satellite.

6. The system recited in Claim 4 wherein the data broadcast system comprises an RF data broadcast system.

7. The system recited in Claim 4 wherein the number of forward error correction bits added to each packet is configurable.

8. A data broadcast system for distributing data to one or more remote locations in a rain fade environment, comprising:

a transmitting processor for forming data packets comprising data to be transmitted and forward error correction bits;

a data distribution system for transmitting the data packets to one or more receivers located at remote locations, which data packets are transmitted at a relatively slow transmission rate such that the time required to transmit the data to the one or more receivers is greater than or equal to the time necessary to transmit the data plus an amount of time sufficient to allow data reconstruction in the presence of a rain fade event; and

the receivers receiving the data packets and processing the received data packets using forward error correction processing to reconstruct the original data.

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~~9~~. The system recited in Claim ~~8~~ wherein the data broadcast system comprises a satellite.

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~~10~~. The system recited in Claim ~~8~~ wherein the data broadcast system comprises an RF data broadcast system.

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~~11~~. The system recited in Claim ~~8~~ wherein the number of forward error correction bits added to each packet is configurable.

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~~13~~. A rain fade mitigation method for distributing data to one or more remote locations in a rain fade environment, comprising the steps of:

forming data packets comprising data to be transmitted;

transmitting the data packets at least two times to one or more remote locations, which times are separated by a time delay having a duration that is related to a rain fade event, which time delay is sufficient to allow data reconstruction in the presence of the rain fade event;

receiving the data packets at the one or more remote locations; and

processing the received data packets at the one or more remote locations to reconstruct the data.

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~~14~~. The method recited in Claim ~~13~~ wherein the number of forward error correction bits added to each packet is configurable.

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~~15~~. The method recited in Claim ~~13~~ wherein:

the step of forming data packets comprises the step of forming data packets containing data to be transmitted and forward error correction bits;

the step of transmitting the data packets comprises the step of transmitting the data packets and forward error correction bits at least two times to one or more remote locations;

the step of receiving the data packets comprises the step of receiving the data packets and forward error correction bits at the one or more remote locations; and

the step of processing the received data packets comprises the step of forward error correction processing the received data packets and forward error correction bits at the one or more remote locations to reconstruct the original data.

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16. The method recited in Claim 15 wherein the number of forward error correction bits added to each packet is configurable.

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17. A rain fade mitigation method for distributing data to one or more remote locations in a rain fade environment, comprising the steps of:

forming data packets comprising data to be transmitted and forward error correction bits;

transmitting the data packets and forward error correction bits to one or more remote locations, which data packets are transmitted at a relatively slow transmission rate such that the time required to transmit the data to the one or more receivers is greater than or equal to the time necessary to transmit the data plus an amount of time sufficient to allow data reconstruction in the presence of a rain fade event;

receiving the data packets and forward error correction bits at the one or more remote locations; and

forward error correction processing the received data packets and forward error correction bits to reconstruct the original data.

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18. The method recited in Claim 17 wherein the number of forward error correction bits added to each packet is configurable.